

Please amend claim 61 as follows:

- 61 (amended). The composition of claim 60 wherein in the polycationic polysaccharide, [the lipophilic amino acid] the A and A groups are alkyl groups having from about 12 to about 22 carbon atoms.

#### REMARKS

Claims 1-64 were pending in the case. Claims 1-10, 23-30 and 51-64 were withdrawn from consideration in view of a restriction requirement. This Response cancels claim 11 in favor of new claim 65, amends claims 36 and 51 and cancels claims 45 and 59. Those claims that depended on claim 11 have been amended to depend on new claim 65. The amendments are supported by the specification as filed.

New claim 65 is based on original claim 11. New claim 65 uses the transitional word "with". The structure in claim 65 clarifies the repeating units are linked through Z-Z bonds. Z-Z bonding is clearly shown on Formula I on page 6. Claim 65 clarifies that the Z's are linked through Z-Z peptide bonds if Z is an amino acid and Z-Z glycosidic bonds if Z is a monosaccharide. Claim 65 also includes the variable "m" on the substituent R and specify that m must be zero at least one time in the compound when Z is an amino acid. Claim 65 now recites that when R is an alkyl group that Z cannot be an acid amino acid. New claim 66 emphasizes those compounds in which R is an alkyl or alkenyl group having 12 to 22 carbon atoms or a steroid.

Support for the amendments is found in the specification as originally filed, including page 21, lines 17-25 where polysaccharide compounds are described where at least one of between 2 and 2,000 monosaccharides has a cationic substituent. In addition, the specification describes polyamino acids alkylated with long hydrocarbon chains on page 19, lines 17-20. Scheme 8 on page 45 describes a polypeptide having one steroid substituent.

Claim 36 has been amended to substitute the transitional word --of-- for "having". Claim 36 has also been amended to delete  $X_5$  and  $X_6$  as possible substituents. Applicant reserves the right to pursue the deleted subject matter in one or more continuing applications.

Claim 51 has been amended similarly to claim 36.

Claim 61 has been amended to correct a problem of antecedent basis.

No new matter has been added by any amendment.

### **Restriction Requirement**

In the Office Action, claims 51-64 were said to be directed to an invention that is independent or distinct from the invention originally claimed. Claim 36 and claims dependent thereon were said to include both elected and nonelected compositions. Applicants' election of Group II was made final.

### Claims 51-64

In the Office Action, claims 51-64 were said to be directed to an invention that is independent or distinct from the invention originally claimed for the following reasons:

The compounds given in instant claim 51, directed to 'Z' entities with tertiary amines additionally attached thereto as  $R_1$  and/or  $R_2$  moieties, are newly submitted compounds which were not presented in the claims that were considered for the action, mailed 8/27/99. Such tertiary amine containing R groups would require an undue additional search burden because polymerization which would link the Z groups would require separate and distinct protection chemistry due to the known high reactivity of tertiary amines that would cause incorrect polymerization unless prevented from reacting. This added protection chemistry would require a significant, additional, and burdensome search over the search for the compounds that have already been elected and thus supports this restriction by original presentation.

Applicants respectfully assert the general subject matter of claims 51-64 has been previously presented. Compounds of claims 51-64 have an A-Z-R structure. The Z-R moieties

in claims 51-64 are limited to monosaccharides with tertiary amines attached thereto. This subject matter has previously been included in Group II in Claims 15 - 17. The "Z" substituent in claims 15-17 is "a sugar having from 3 to about 7 carbon atoms where said sugar comprises a cationic substituent where said cationic substituent is a tertiary amine". Therefore, the subject matter of claims 51-64 has been presented previously in Group II and claims 51-64 should be classified in Group II. Examination of claims 51-64 in this application is respectfully requested.

#### Claim 36

The Office Action stated that claim 36 and claims dependent therefrom include both elected and nonelected compositions. The Office Action stated "[t]he non-elected compositions are those wherein the A<sub>1</sub> and/or A<sub>2</sub> moieties are complex in that they contain linkers such as those given as the entities 'B' or 'D' described regarding moieties X<sub>5</sub> or X<sub>6</sub> within claim 36." Claim 36 includes compounds that are claimed as -B-L or -CH(D-L)<sub>2</sub> or <sub>3</sub> where B or D are -CO-, -CO<sub>2</sub>-, -OCO-, -CO-N-, -O-CO-N-, -O-CH<sub>2</sub>-, -CH<sub>2</sub>-O-, -S-CH<sub>2</sub>-, -CH<sub>2</sub>-S- or -CH<sub>2</sub> attached to an aromatic, alicyclic, heterocyclic or polycyclic ring moiety. It is submitted that these compounds are within the elected species. To advance prosecution, however, X<sub>5</sub> and X<sub>6</sub> have been deleted from claim 36 without prejudice. Claim 51 has also been similarly amended.

#### **The Rejections**

##### Rejection of claims under 35 U.S.C. 112, second paragraph

Claims 11-22 and 31-50 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite. The Office Action stated that the claims do not define whether the repeat monomers are linked to each other or not and do not define where the linkages are formed.

Claim 11 has been replaced with new claim 65 which clarifies that the Z structures are linked through Z-Z peptide bonds when Z is an amino acid and linked by Z-Z glycosidic bonds when Z is a monosaccharide. These amendments are believed to obviate the rejections.

The use of the word "having" in claims 11 and 36 was objected to. Claim 11 has been replaced with new claim 65 to use the word "with" and claim 36 has been amended to use the word "of". It is believed these amendments obviate this rejection.

Rejection of claims under 35 U.S.C. 102

In the Office Action, claims 11, 15, 16 and 34 were rejected under 35 U.S.C. 102(b) as being anticipated by polyamino acids from the 1990 Sigma Chemical Catalog.

The Office Action stated that polyalanine anticipates the compound of the invention where A is an amino acid such as glycine and R is an alkyl group. The amendments to original claim 11 as present in new claim 65 are believed to overcome this rejection. Claim 65 is directed to there is at least one "R" in the compound when Z is an amino acid. Applicants note that R is a substituent in addition to the side group carried by amino acid Z. Thus, polyamino acids such as polyalanine do not anticipate the claims as amended. Claimed compounds have at least one R bonded to the amino acid in addition to the conventional amino acid side group. The Office Action states that other polyamino acids read on the claims such as polyvaline and polyleucine. Polyvaline and polyleucine do not read on claim 65 for the reasons discussed above.

The Office Action stated that products P8035 and P1388 read on the claims. Product P8035 (poly- $\gamma$ -ethyl L-glutamate) does not read on original claim 11 or new claim 65. P8035 has the following structure:  $-(NH-CH-(CH_2CH-(CH_2CH_3)-COO)-CO)_n-$ .

New claim 65 now recites that R cannot be an alkyl group when Z is an acidic amino acid. It is believed that this amendment renders the claim patentable over the products cited by the Examiner

New claim 66 recites that R can be an alkyl or alkenyl group having from 12 to about 22 carbon atoms. This claim emphasizes those compounds which have long hydrocarbon chain tails, as discussed on page 19 of the specification. It is believed that new claim 66 is patentable over the compounds cited by the Examiner.

Applicants note that only claims 11, 15, 16 and 34 were rejected over the cited prior art. Applicants assume that the Examiner considers that the remaining claims are patentable over the prior art.

#### CONCLUSION

In view of the above arguments and amendments, it is submitted that all rejections are overcome and claims 12-22, 31-44, 46-58 and 60-66 are in condition for allowance. Reconsideration and withdrawal of the rejections is respectfully requested.

This response is accompanied by a Petition for Extension of Time (three months) and the necessary fee. An additional fee of \$80 for entrance of one additional independent claim is also submitted. Please charge the claim fee to Deposit Account No. 07-1969. If the fees submitted are incorrect, however, please deduct the appropriate fee for this submission and any extensions of time required from Deposit Account No. 07-1969.

Respectfully submitted,

  
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